

**Section 5 –  
Federal Facilities Trends for the  
Priority Chemicals (1999-2003)**

## Introduction

This section presents data for the national, EPA Region, State, and industry sector quantities of 23 Priority Chemicals (PCs), reported to TRI by federal facilities. Within each of these levels, facility data is aggregated by the associated federal agency. For the purposes of this Trends Report, Government owned, Contractor operated (GOCO) Federal facilities also are included. Please note that only those federal facilities that reported one or more of the PCs to Toxics Release Inventory (TRI) and indicated they were either a federal or GOCO facility on the TRI Form R are included in this analysis. We made no attempt to identify federal facilities that did not indicate on the TRI Form R they were a federal or GOCO facility.

## How Do the Priority Chemicals Relate to the Executive Order Priority Chemicals?

On April 21, 2000, Executive Order (EO) 13148 (Greening the Government through Leadership in Environmental Management) mandated, among other things, that federal facilities reduce the use of identified PCs by at least 50 percent by December 31, 2006 (see Section 503 of EO 13148). An Interagency Workgroup subsequently identified five chemicals (lead, cadmium, mercury, naphthalene, and PCBs) to meet the mandate of EO 13148. These five chemicals also are among the list of 31 PCs. It is important to note that the focus of the mandate in EO Section 503 is to reduce the “use” of the identified PCs – that is, specific uses of the PCs at federal facilities. Federal agencies collect information (regarding efforts to reduce use of the EO PCs) from each federal facility within their jurisdiction and submit an annual report to EPA.

This section of the PCs Trends Report shows trends regarding the generation and management of the 23 PCs that are reported to TRI. As previously noted, the purposes of the Trends Report (and database) are to 1) track progress made toward the Government Performance and Results Act (GPRA) goals to reduce the presence of the PCs in wastes and 2) provide data to assist efforts for identifying voluntary potential waste minimization opportunities that present source reduction and recycling as alternatives to land disposal, treatment, and energy recovery. The following discussion refers solely to the generation and management of PCs from the perspective and is separate from the EO mandate regarding the “use” of 5 of these chemicals.

## Summary Analysis– Priority Chemicals at Federal Facilities

- In 2000 and, again in 2001, there were significant increases in both the quantity and number of reporting federal facilities, compared to 1999. In 2003, 191 federal facilities reported a total of more than 4.1 million pounds of PCs. This represents about 5 percent of the total quantity of PCs reported by all facilities (federal + non-federal) in 2003.
- In 2003, federal facilities reported 7 of the PCs. Lead and lead compounds comprised almost 97 percent of the total quantity reported (Exhibit 5.5).

- About 97 percent of the PCs reported in 2003 were land disposed, primarily onsite.
- In 2003, only 10 federal facilities accounted for almost 54 percent of the total quantity; 50 federal facilities accounted for almost 95 percent of the total quantity. Federal facilities in two agencies: the Department of Defense and Department of Energy reported 97 percent of the total quantity of lead and lead compounds, 100 percent of mercury and mercury compounds, and 100 percent of the PACs.
- Since 2001, PC quantities increased in 13 of the 16 states. The largest percent increases were reported by federal facilities in Nevada, Washington, Virginia, Missouri, and Colorado. Significant decreases were reported by federal facilities in California, Texas, and Hawaii. Federal facilities in Washington reported over 18 percent of the total quantity of PCs reported by federal facilities in 2003. One Department of Energy facility, located in Washington, accounted for 84 percent of the total quantity of PCs reported by federal facilities in Washington.
- Federal facilities in SIC 9711 (National Security) reported almost 98 percent of the total quantity of PCs reported by federal facilities in 2003.

## Generation of the Priority Chemicals by Federal Facilities (1999-2003)

*National Overview of Generation Trends.* In 2003, about 4.1 million pounds of PCs were reported by 191 federal facilities. Both the number of reporting facilities and the total quantity of PCs were about 13 times greater than in 1999. Throughout this period, federal facilities primarily used land disposal to manage the PCs (Exhibit 5.1). In 2003, federal facilities reported about 5 percent of the total national quantity of PCs, including almost 11 percent of the lead and lead compounds (Exhibit 5.3).

A relatively small number of federal facilities reported much of the total quantity of PCs. For example, of the 191 federal facilities that reported a PC quantity in 2003, only 10 federal facilities accounted for almost 54 percent of the total quantity and 50 federal facilities accounted for almost 95 percent of the total quantity (Exhibit 5.4)

Since 2001, federal facilities annually have recycled about 1 million pounds of PCs (Exhibit 5.1). Lead and lead compounds accounted for most of the recycling.

Exhibit 5. 1. National-Level Information for Management of Priority Chemicals at Federal Facilities (1999-2003)

	1999	2000	2001	2002	2003	Percent Change (1999 - 2003)	Management Method -- Percent of Quantity of this Chemical in 2003
Number of Facilities	15	36	149	175	191	1180.0%	
Disposal Quantity (lbs.)	284,482	262,885	2,359,494	3,086,693	3,988,750	1302.1%	96.5%
Energy Recovery Quantity (lbs.)	0	2,603	89,276	19,962	6,646	NA	0.2%
Treatment Quantity (lbs.)	3,168	3,514	42,848	358,522	137,012	4224.9%	3.3%
Priority Chemical Quantity (lbs.)	287,650	269,003	2,491,618	3,465,177	4,132,407	1336.6%	
Recycling Quantity (lbs.)	308,485	328,452	1,226,605	989,192	1,091,335	253.8%	

Exhibit 5. 2. Comparison of Quantity of Priority Chemicals Reported by Federal Facilities to the Total National Quantity of Priority Chemicals (2003).

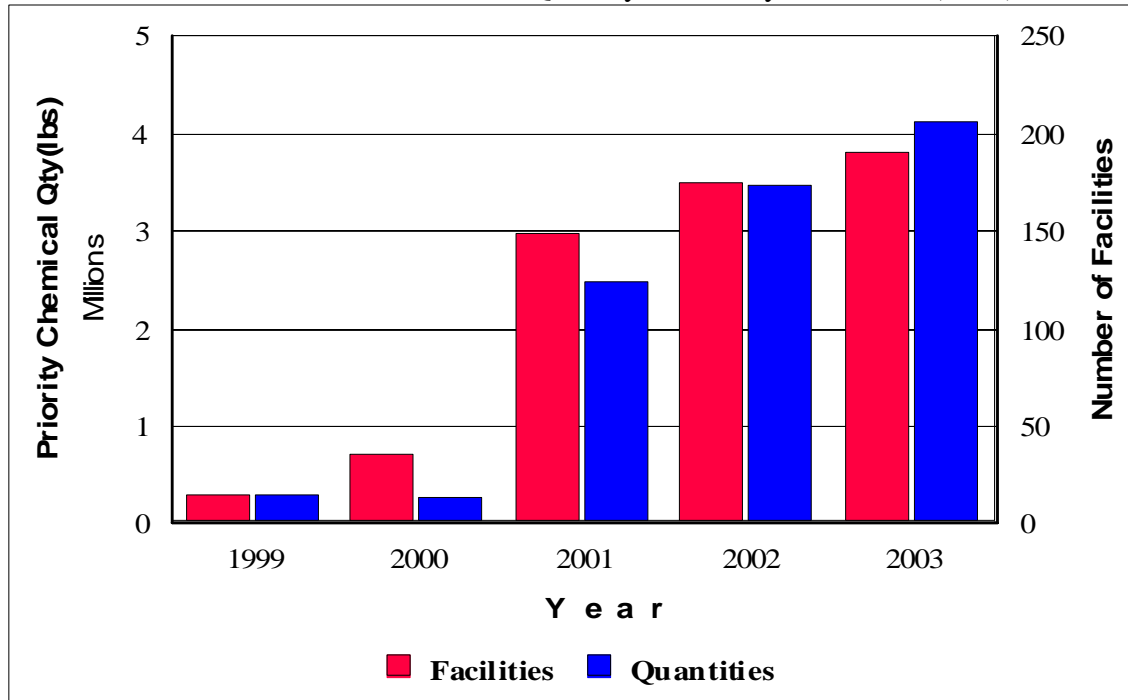


Exhibit 5. 3. Priority Chemicals Reported by Federal Facilities

Chemical Name	Total Quantity Reported by All Facilities (including Federal Facilities) in 2003	Quantity Reported by Federal Facilities in 2003	Percent of Total National Quantity of this Chemical Reported by Federal Facilities (2003)
Lead and Lead Compounds	36,667,276	3,985,762	10.9%
Polycyclic Aromatic Compounds	12,672,606	928	0.0%
Naphthalene	10,399,334	7,555	0.1%
Hexachloro-1,3-butadiene	5,566,299	0	0.0%
Hexachlorobenzene	4,272,727	0	0.0%
Hexachloroethane	2,734,341	91,255	3.3%
Phenanthrene	1,817,292	0	0.0%
1,2,4 - Trichlorobenzene	1,674,271	45,552	2.7%
Cadmium and Cadmium Compounds	817,579	0	0.0%
Quintozone	604,434	0	0.0%
Pentachlorobenzene	484,733	0	0.0%
Pendimethalin	429,551	0	0.0%
Anthracene	419,068	0	0.0%
Benzo(g,h,i)perylene	315,294	5	0.0%
Pentachlorophenol	160,760	0	0.0%

<b>Chemical Name</b>	<b>Total Quantity Reported by All Facilities (including Federal Facilities) in 2003</b>	<b>Quantity Reported by Federal Facilities in 2003</b>	<b>Percent of Total National Quantity of this Chemical Reported by Federal Facilities (2003)</b>
Dibenzofuran	75,605	0	0.0%
Trifluralin	57,290	0	0.0%
Mercury and Mercury Compounds	40,544	1,350	3.3%
2,4,5 - Trichlorophenol	22,857	0	0.0%
Dioxin and dioxin-like compounds	709	less than 1	0.0%
Lindane	71	0	0.0%
Heptachlor	54	0	0.0%
Methoxychlor	0	0	0.0%
<b>Total</b>	<b>79,232,695</b>	<b>4,132,407</b>	<b>5.2%</b>

Note: the national total quantity includes the quantity reported by federal facilities. Quantities of the PCs reported by federal facilities also are included in the PC trends analyses presented in Sections 2, 3, and 4.

Exhibit 5. 4. Distribution of Federal Facilities that Reported Quantities of Priority Chemicals (2003)

<b>Quantity Reported by Federal Facilities</b>	<b>Number of Federal Facilities Reporting this quantity</b>	<b>Percent of Total Quantity for this Priority Chemical (2003)</b>
up to 10 pounds	25	less than 0.1%
between 11 - 100 pounds	23	less than 0.1%
between 101 -1,000 pounds	38	0.5%
between 1,001 - 10,000 pounds	56	5.0%
between 10,001 - 100,000 pounds	40	40.6%
between 100,001 - 1 million pounds	10	53.9%
> 1 million pounds	0	0.0%

Exhibit 5. 5. Quantity of Priority Chemicals Recycled by Federal Facilities (1999-2003)

<b>Chemical</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
1,2,4 - Trichlorobenzene	0	0	0	0	0
Benzo(g,h,i)perylene	0	1	0	0	0
Dioxin and dioxin-like compounds	0	0	0	0	0
Hexachlorobenzene	0	0	0	0	0
Hexachloroethane	0	0	0	0	0
Lead and Lead Compounds	308,485	327,925	1,225,933	988,526	1,076,755
Mercury and Mercury Compounds	0	400	672	666	8,768
Naphthalene	0	0	0	0	5,812
Polycyclic Aromatic Compounds (PACs)	0	126	0	0	0
<b>Total</b>	<b>308,485</b>	<b>328,452</b>	<b>1,226,605</b>	<b>989,192</b>	<b>1,091,335</b>

Exhibits 5.6 and 5.7 show the total quantity of each PC reported from 1999 through 2003 as well as the number of federal facilities reporting these chemicals. Most of the increased quantity of PCs reported by federal facilities in 1999-2003 was reported by facilities in SIC 9711 (National Security), primarily military installations. Much of this increase was due to reporting of larger quantities of lead and lead compounds. This increased quantity was likely caused by:

1. A lower TRI reporting threshold for lead and lead compounds that took effect in 2001;
2. Guidance issued by the Department of Defense (DOD) in 2000 requiring its ranges to report under TRI (effective as of the 2001 TRI Reporting year); and
3. The increase in training and other activities at federal facilities in support of military and security operations to counter terrorism worldwide, including events in Afghanistan and Iraq.

Exhibit 5. 6. Quantity of Priority Chemicals Reported by Federal Facilities (1999-2003)

Chemical	1999	2000	2001	2002	2003	Percent of Total Quantity Reported in 2003
Lead and Lead Compounds	286,742	265,816	2,440,288	3,080,808	3,985,762	96.5%
Hexachloroethane	0	0	0	84,900	91,255	2.2%
1,2,4 - Trichlorobenzene	0	0	0	272,827	45,552	1.1%
Naphthalene	113	2,675	2,764	20,905	7,555	0.2%
Mercury and Mercury Compounds	795	446	48,537	5,721	1,350	0.0%
Polycyclic Aromatic Compounds (PACs)	0	54	0	16	928	0.0%
Benzo(g,h,i)perylene	0	1	0	0	5	0.0%
Dioxin and dioxin-like compounds	0	11	1	0	0	0.0%
Hexachlorobenzene	0	0	28	0	0	0.0%
Total	287,650	269,003	2,491,618	3,465,177	4,132,407	

Exhibit 5. 7. Number of Federal Facilities that Reported Each Priority Chemical (1999-2003)

Chemical	1999	2000	2001	2002	2003
1,2,4 - Trichlorobenzene	0	0	0	2	1
Benzo(g,h,i)perylene	0	1	0	0	1
Dioxin and dioxin-like compounds	0	3	1	4	0
Hexachlorobenzene	0	0	1	0	0
Hexachloroethane	0	0	0	1	1
Lead and Lead Compounds	11	15	135	142	149
Mercury and Mercury Compounds	2	14	9	8	12
Naphthalene	2	2	3	17	25
Polycyclic Aromatic Compounds (PACs)	0	1		1	2
<b>Total</b>	<b>15</b>	<b>36</b>	<b>149</b>	<b>175</b>	<b>191</b>

*Priority Chemicals within Federal Agencies.* Exhibit 5.8 shows the quantity of PCs, reported by federal agency, in 1999-2003. In 2003, federal facilities in only the Department of Defense and Department of Energy reported more than 1 of the PCs; these two agencies reported 97 percent of the total quantity of lead and lead compounds, 100 percent of mercury and mercury compounds, and 100 percent of the PACs.

Exhibit 5. 8. Quantity of Priority Chemicals Reported by Federal agency, 1999-2003

Priority Chemical	Agency	1999	2000	2001	2002	2003
1,2,4 - Trichlorobenzene	Department of Defense	0	0	0	272,827	45,552
Benzo(g,h,i)perylene	Department of Defense	0	0	0	0	5
	Department of Homeland Security	0	1	0	0	0
Dioxin and dioxin-like compounds	Environmental Protection Agency	0	11	1	0	0
Hexachlorobenzene	Department of Defense	0	0	28	0	0
Hexachloroethane	Department of Defense	0	0	0	84,900	91,255
Lead and Lead Compounds	Department of Agriculture	0	0	1,237	1,514	2,408
	Department of Defense	73,190	170,467	2,006,892	2,456,994	2,629,913
	Department of Energy	117,158	12,070	311,903	427,035	1,225,179
	Department of Homeland Security	96,394	83,279	108,692	152,536	118,967
	Department of Interior	0	0	2,933	1,583	797
	Department of Justice	0	0	0	477	249
	Department of Transportation	0	0	0	27,718	0
	Department of Treasury	0	0	0	297	122
	Environmental Protection Agency	0	0	2,971	4,477	3,397
	National Aeronautics and Space Administration	0	0	4,672	6,158	3,984
	Tennessee Valley Authority	0	0	988	2,019	746
Mercury and Mercury Compounds	Department of Defense	0	66	47,582	5,186	606
	Department of Energy	795	348	891	535	744
	Environmental Protection Agency	0	32	63	0	0
Naphthalene	Department of Defense	110	2,641	2,764	20,875	7,468
	Department of Energy	3	34	0	0	9
	Department of Health and Human Services	0	0	0	30	0
	National Aeronautics and Space Administration	0	0	0	0	78

Priority Chemical	Agency	1999	2000	2001	2002	2003
Polycyclic Aromatic Compounds (PACs)	Department of Defense	0	0	0	0	690
	Department of Energy	0	0	0	16	238
	Department of Homeland Security	0	54	0	0	0
	<b>Total</b>	<b>287,650</b>	<b>269,003</b>	<b>2,491,618</b>	<b>3,465,177</b>	<b>4,132,407</b>

Exhibit 5.9 shows how facilities in each federal agency managed their PCs in 2003. Facilities in the Department of Defense and Department of Energy reported about 97 percent of total recycled quantity in 2003.

Exhibit 5. 9. Management of Priority Chemicals by Federal Agency (2003)

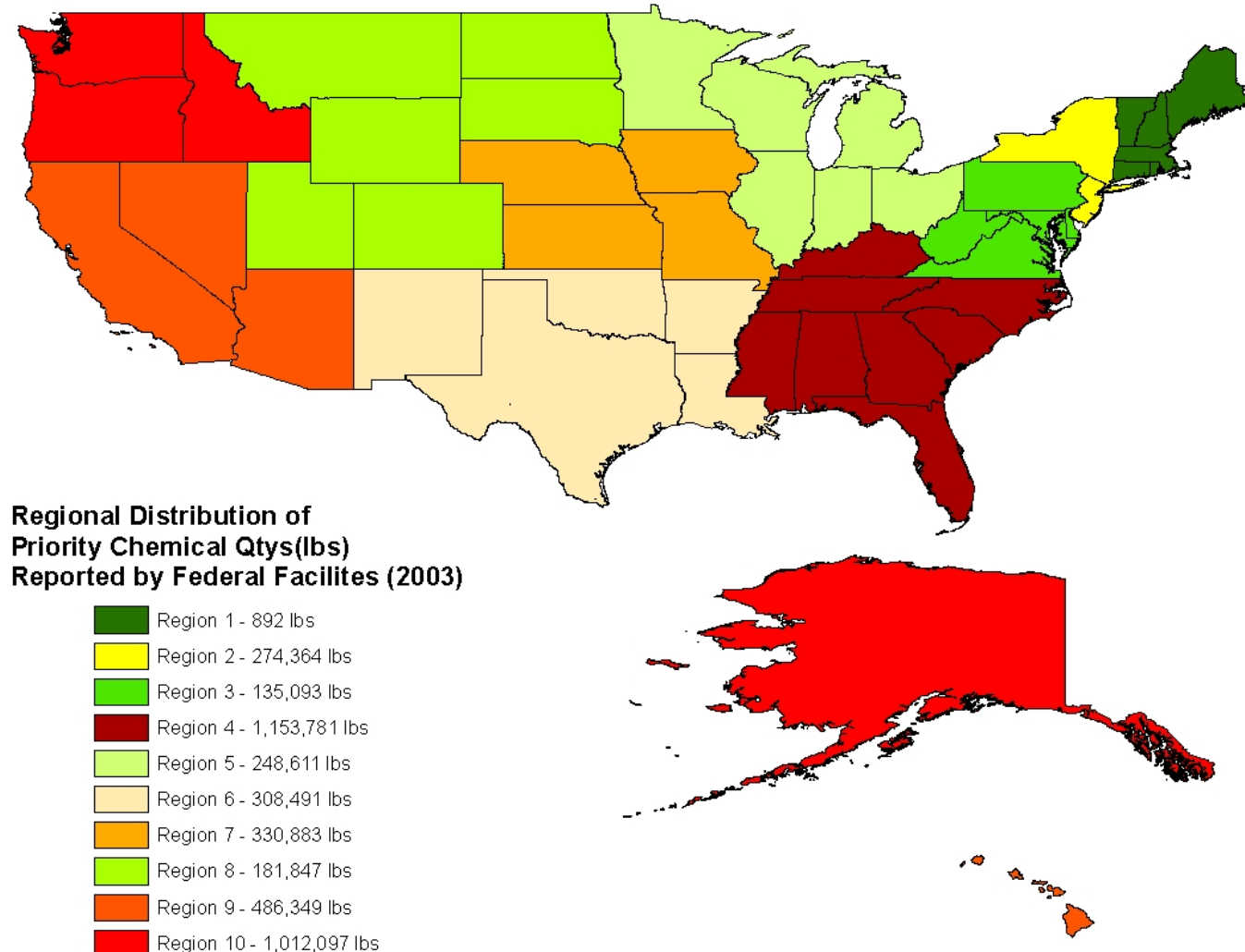
Agency	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
Department of Agriculture	2,408	2,408	0	0	0	0	0	0	19
Department of Defense	2,775,488	2,565,979	66,175	2,315	4,172	134,372	2,475	202,297	210,394
Department of Energy	1,226,171	668,060	557,865	0	158	0	87	291,180	355,374
Department of Homeland Security	118,967	89,541	29,426	0	0	0	0	0	18,343
Department of Interior	797	797	0	0	0	0	0	0	0
Department of Justice	249	0	249	0	0	0	0	0	0
Department of Treasury	122	0	122	0	0	0	0	30	10,386
Environmental Protection Agency	3,397	3,397	0	0	0	0	0	0	0
National Aeronautics and Space Administration	4,061	3,962	21	0	0	0	78	0	1,513
Tennessee Valley Authority	746	0	746	0	0	0	0	0	1,800
<b>Total</b>	<b>4,132,407</b>	<b>3,334,144</b>	<b>654,605</b>	<b>2,315</b>	<b>4,331</b>	<b>134,372</b>	<b>2,640</b>	<b>493,507</b>	<b>597,828</b>

***Regional (EPA Region) Overview of Generation and Management Trends.*** Federal facilities in Regions 4 and 10 reported over 52 percent of the total national quantity of PCs in 2003 (Exhibit 5.10). Exhibit 5.11 illustrates the regional distribution of PCs reported by federal facilities in 2003.

Exhibit 5. 10. Priority Chemical Quantities (pounds) Reported by Federal Facilities for each EPA Region (1999 – 2003)

<b>EPA Region</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Percent change in Quantity (2001-2003)</b>	<b>Percent of Total Quantity Reported by Federal Facilities (2003)</b>
4	137,215	129,678	826,909	1,245,439	1,153,781	39.5%	27.9%
10	120,152	41,513	198,818	309,781	1,012,097	409.1%	24.5%
9	24,263	44,385	567,791	685,665	486,349	-14.3%	11.8%
7	0	7,779	128,476	175,175	330,883	157.5%	8.0%
6	0	11,190	371,967	404,566	308,491	-17.1%	7.5%
2	0	106	124,521	298,388	274,364	120.3%	6.6%
5	1,767	28,029	161,755	154,021	248,611	53.7%	6.0%
8	2,284	3,844	58,226	88,651	181,847	212.3%	4.4%
3	1,969	2,424	51,995	93,315	135,093	159.8%	3.3%
1	0	54	1,161	10,177	892	-23.2%	0.0%
<b>Total</b>	<b>287,650</b>	<b>269,003</b>	<b>2,491,618</b>	<b>3,465,177</b>	<b>4,132,407</b>	<b>65.9%</b>	

Exhibit 5. 11. Quantity for each Priority Chemical reported by Federal Facilities, from 1999 to 2003, by EPA Region



**Significant increases, compared to quantities reported in 2001**

- Lead and Lead Compounds in Region 10 (+ 676,033 pounds)
- Lead and Lead Compounds in Region 4 (+ 324,648 pounds)
- Lead and Lead Compounds in Region 7 (+ 202,412 pounds)
- Lead and Lead Compounds in Region 2 (+ 149,844 pounds)

**Significant decreases, compared to quantities reported in 2001**

- Lead and Lead Compounds in Region 6 (-63,894 pounds)
- Mercury and Mercury Compounds in Region 9 (- 47,076 pounds)
- Lead and Lead Compounds in Region 8 (- 34,829 pounds)

In 2003, federal facilities in Region 4 reported zero quantity of 1,2,4 – Trichlorobenzene and Hexachloroethane – a significant decrease from the 160,000 pounds and 84,900 pounds, respectively, reported in 2002 (exhibit 5.12).

Exhibit 5. 12. Priority Chemical Quantities (pounds) Reported by Federal Facilities, by EPA Region (1999 – 2003)

EPA Region	Chemical	1999	2000	2001	2002	2003	Percent of Total Quantity of Priority Chemicals Reported by Federal Facilities (2003)
1	Benzo(g,h,i)perylene	0	1	0	0	0	0.0%
	Lead and Lead Compounds	0	0	698	865	870	0.0%
	Naphthalene	0	0	463	9,312	21	0.0%
	Polycyclic Aromatic Compounds (PACs)	0	54	0	0	0	0.0%
2	Lead and Lead Compounds	0	0	123,921	298,248	273,764	6.6%
	Mercury and Mercury Compounds	0	106	600	140	600	0.0%
3	Lead and Lead Compounds	1,969	2,424	51,986	93,284	134,930	3.3%
	Mercury and Mercury Compounds	0	0	9	0	83	0.0%
	Naphthalene	0	0	0	32	79	0.0%
4	1,2,4 - Trichlorobenzene	0	0	0	160,000	0	0.0%
	Dioxin and dioxin-like compounds	0	11	1	0	0	0.0%
	Hexachloroethane	0	0	0	84,900	0	0.0%
	Lead and Lead Compounds	136,307	126,972	824,325	998,882	1,148,973	27.8%
	Mercury and Mercury Compounds	795	53	354	239	37	0.0%
	Naphthalene	113	2,641	2,229	1,418	4,771	0.1%
5	Lead and Lead Compounds	1,767	28,023	161,672	152,133	246,888	6.0%
	Mercury and Mercury Compounds	0	6	10	0	0	0.0%
	Naphthalene	0		72	1,888	1,722	0.0%
6	Lead and Lead Compounds	0	10,980	371,967	396,155	308,072	7.5%
	Mercury and Mercury Compounds	0	210		156	50	0.0%
	Naphthalene	0	0	0	8,255	369	0.0%
7	Lead and Lead Compounds	0	7,726	128,471	175,174	330,883	8.0%
	Mercury and Mercury Compounds	0	53	5	1	0	0.0%
	Benzo(g,h,i)perylene	0	0	0	0	5	0.0%
8	Hexachlorobenzene	0	0	28	0	0	0.0%
	Lead and Lead Compounds	2,284	3,844	58,198	88,650	181,126	4.4%
	Mercury and Mercury Compounds	0	0	0	0	23	0.0%
	Naphthalene	0	0	0	1	4	0.0%
	Polycyclic Aromatic Compounds (PACs)	0	0	0	0	690	0.0%
	Lead and Lead Compounds	24,263	44,385	520,241	680,485	485,412	11.7%

EPA Region	Chemical	1999	2000	2001	2002	2003	Percent of Total Quantity of Priority Chemicals Reported by Federal Facilities (2003)
9	Mercury and Mercury Compounds	0	0	47,550	5,180	474	0.0%
	Naphthalene	0	0	0	0	463	0.0%
	1,2,4 - Trichlorobenzene	0	0	0	112,827	45,552	1.1%
10	Hexachloroethane	0	0	0	0	91,255	2.2%
	Lead and Lead Compounds	120,152	41,462	198,810	196,933	874,843	21.2%
	Mercury and Mercury Compounds	0	17	8	6	84	0.0%
	Naphthalene	0	34	0	0	125	0.0%
	Polycyclic Aromatic Compounds (PACs)	0	0	0	16	238	0.0%

*Priority Chemicals within Federal Agencies, by EPA Region.* In 2003, Department of Defense facilities in Regions 4 and 9 reported about 37 percent of the total quantity of PCs reported by federal facilities. Department of Energy facilities in Region 10 reported 18 percent of the total quantity. Exhibit 5.13 shows the PC quantities in each EPA Region, by federal agency, from 1999 to 2003.

Exhibit 5. 13. Priority Chemical Quantities (pounds) in EPA Regions, by Federal Agency (1999 – 2003)

EPA Region	Agency	1999	2000	2001	2002	2003	Percent of Total Quantity of Priority Chemicals Reported by Federal Facilities (2003)
1	Department of Defense	0	0	531	9,363	68	0.0%
	Department of Homeland Security	0	54	27	206	27	0.0%
	Department of Interior	0	0	603	607	797	0.0%
2	Department of Defense	0	0	83,742	109,502	105,289	2.5%
	Department of Energy	0	106	40,779	161,168	165,606	4.0%
	Department of Homeland Security	0	0	0	0	3,469	0.1%
	Department of Transportation	0	0	0	27,718	0	0.0%
3	Department of Agriculture	0	0	1,237	1,514	2,408	0.1%
	Department of Defense	1,969	2,424	49,678	90,839	130,722	3.2%
	Department of Health and Human Services	0	0	0	30	0	0.0%
	Department of Homeland Security	0	0	932	0	1,504	0.0%
	Department of Interior	0	0	148	161	0	0.0%
	Department of Justice	0	0	0	477	249	0.0%
	Department of Treasury	0	0	0	290	118	0.0%
	National Aeronautics and Space Administration	0	0	0	5	93	0.0%

EPA Region	Agency	1999	2000	2001	2002	2003	Percent of Total Quantity of Priority Chemicals Reported by Federal Facilities (2003)
4	Department of Defense	22,930	45,254	708,273	1,175,632	1,034,538	25.0%
	Department of Energy	17,891	12,081	22,378	23,421	42,387	1.0%
	Department of Homeland Security	96,394	72,299	90,624	38,900	72,572	1.8%
	Environmental Protection Agency	0	43	64	16	0	0.0%
	National Aeronautics and Space Administration	0	0	4,582	5,451	3,538	0.1%
	Tennessee Valley Authority	0	0	988	2,019	746	0.0%
5	Department of Defense	1,767	28,027	26,497	43,339	75,648	1.8%
	Department of Energy	0	2	135,258	110,681	172,963	4.2%
6	Department of Defense	0	0	324,654	251,882	256,632	6.2%
	Department of Energy	0	210	31,209	40,259	16,340	0.4%
	Department of Homeland Security	0	10,980	15,904	111,808	35,089	0.8%
	Department of Interior	0	0	199	0	0	0.0%
	Department of Treasury	0	0	0	5	0	0.0%
	National Aeronautics and Space Administration	0	0	0	612	431	0.0%
7	Department of Defense	0	7,779	128,467	175,149	330,875	8.0%
	Department of Energy	0	0	9	26	7	0.0%
8	Department of Defense	2,284	3,844	54,996	59,272	88,370	2.1%
	Department of Energy	0	0	3,108	29,376	93,473	2.3%
	Department of Interior	0	0	122	0	0	0.0%
	Department of Treasury	0	0	0	2	5	0.0%
9	Department of Defense	24,263	44,375	560,438	674,951	477,613	11.6%
	Department of Energy	0	10	5,382	9,809	8,736	0.2%
	Department of Homeland Security	0	0	20	0	0	0.0%
	Department of Interior	0	0	1,861	815	0	0.0%
	National Aeronautics and Space Administration	0	0	90	90	0	0.0%
10	Department of Defense	20,087	41,470	119,991	250,853	275,734	6.7%
	Department of Energy	100,065	43	74,671	52,846	726,660	17.6%
	Department of Homeland Security	0	0	1,185	1,622	6,307	0.2%
	Environmental Protection Agency	0	0	2,971	4,461	3,397	0.1%
	<b>Total</b>	<b>287,650</b>	<b>269,003</b>	<b>2,491,618</b>	<b>3,465,177</b>	<b>4,132,407</b>	

### *How Did Federal Agencies Manage Priority Chemicals Within the EPA Regions?*

Exhibit 5.14 shows the methods used to manage the PCs in the EPA Regions, by federal agency, in 2003.

**Disposal:** In most of the Regions, Department of Defense facilities primarily used onsite disposal. Except in Region 10, Department of Energy facilities used offsite disposal for most of their PC quantity.

**Treatment:** A Department of Defense facility in Oregon reported virtually 100 percent of the total treatment quantity reported by federal facilities in 2003.

**Energy Recovery:** Department of Defense facilities in Regions 4 and 5 reported over 90 percent of the total quantity of PCs sent to energy recovery.

**Recycling:** Department of Defense and Department of Energy facilities in Regions 4 and 9 reported about 68 percent of the total quantity of recycled PCs.

Exhibit 5. 14. Management of Priority Chemicals in EPA Regions, by Federal Agency (2003)

EPA Region	Agency	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
1	Department of Defense	0	47	0	21	0	0	0	102,254
	Department of Homeland Security	0	27	0	0	0	0	0	4,300
	Department of Interior	797	0	0	0	0	0	0	0
2	Department of Defense	105,283	6	0	0	0	0	0	7
	Department of Energy	0	165,606	0	0	0	0	0	0
	Department of Homeland Security	1,877	1,592	0	0	0	0	0	0
3	Department of Agriculture	2,408	0	0	0	0	0	0	19
	Department of Defense	124,279	6,442	0	0	0	0	0	2,014
	Department of Homeland Security	1,504	0	0	0	0	0	0	6,300
	Department of Justice	0	249	0	0	0	0	0	0
	Department of Treasury	0	118	0	0	0	0	30	9,651
	National Aeronautics and Space Administration	0	15	0	0	0	78	0	1,080
4	Department of Defense	1,010,759	19,450	2,204	2,122	0	4	0	5
	Department of Energy	10,025	32,361	0	0	0	0	291,180	94,542
	Department of Homeland Security	54,029	18,543	0	0	0	0	0	7,743
	National Aeronautics and Space Administration	3,531	6	0	0	0	0	0	2
	Tennessee Valley Authority	0	746	0	0	0	0	0	1,800

EPA Region	Agency	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
5	Department of Defense	73,896	56	0	1,696	0	0	0	1
	Department of Energy	0	172,963	0	0	0	0	0	3,619
6	Department of Defense	255,065	1,199	0	333	0	35	0	8,081
	Department of Energy	3,666	12,674	0	0	0	0	0	7,800
	Department of Homeland Security	32,131	2,958	0	0	0	0	0	0
	Department of Treasury	0	0	0	0	0	0	0	500
	National Aeronautics and Space Administration	431	0	0	0	0	0	0	431
7	Department of Defense	323,768	7,107	0	0	0	0	0	0
	Department of Energy	0	7	0	0	0	0	0	1,592
	Environmental Protection Agency	0	0	0	0	0	0	0	0
8	Department of Defense	79,773	8,595	0	0	0	1	197	85,411
	Department of Energy	0	93,473	0	0	0	0	0	96,232
	Department of Treasury	0	5	0	0	0	0	0	235
9	Department of Defense	474,426	3,187	0	0	0	0	202,100	12,622
	Department of Energy	3,026	5,710	0	0	0	0	0	136,373
10	Department of Defense	118,730	20,086	111	0	134,372	2,435	0	0
	Department of Energy	651,343	75,071	0	158	0	87	0	15,216
	Department of Homeland Security	0	6,307	0	0	0	0	0	0
	Environmental Protection Agency	3,397	0	0	0	0	0	0	0

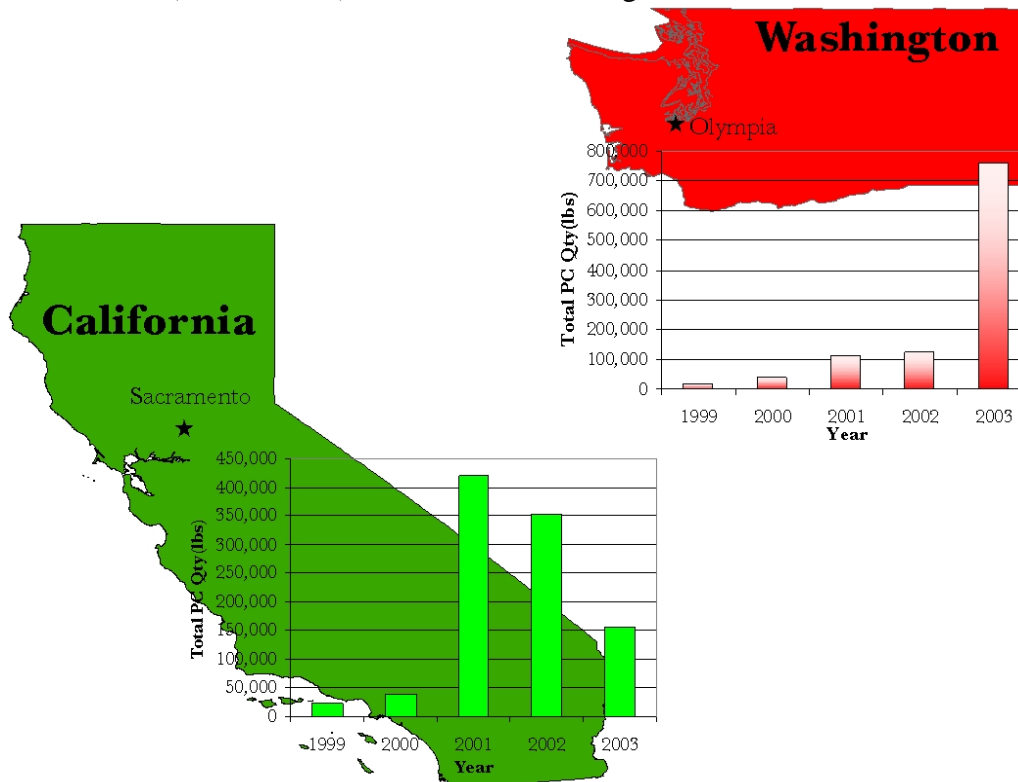
*State Overview of Generation and Management Trends.* In 1999-2003, federal facilities in 48 states and Washington, D.C. reported a PC quantity. Exhibit 5.15 presents the PC quantities reported by federal facilities in the 16 states that accounted for over 90 percent of the total quantity reported by federal facilities in 2003. Since 2001, quantities increased in 13 of these 16 states. Federal facilities in Washington reported over 18

percent of the total quantity of PCs reported by federal facilities in 2003; one Department of Energy facility accounted for 84 percent of the quantity in Washington (Exhibit 5.17). Quantities reported by federal facilities in California decreased by 63% from 1999 – 2003 (Exhibit 5.16).

Exhibit 5. 15. Priority Chemical Quantity (pounds) by State (1999-2003)

State	1999	2000	2001	2002	2003	Change in Quantity (2001-2003)	Percent Change (2001-2003)	Percent of Total Quantity Reported by Federal Facilities (2003)	Percent of Total National Quantity of Priority Chemicals (2003)
Washington	20,087	40,485	109,771	126,357	760,643	650,873	592.9%	18.4%	1.0%
Georgia	96,394	72,299	280,815	208,052	353,761	72,947	26.0%	8.6%	0.4%
Missouri	0	7,748	91,825	175,022	297,466	205,641	223.9%	7.2%	0.4%
North Carolina	0	43	157,075	219,488	286,574	129,499	82.4%	6.9%	0.4%
Kentucky	0	0	162,571	148,467	281,114	118,543	72.9%	6.8%	0.4%
Nevada	0	3,909	10,175	224,099	226,422	216,248	2125.4%	5.5%	0.3%
New York	0	106	93,112	220,124	226,168	133,056	142.9%	5.5%	0.3%
Texas	0	199	250,388	166,204	186,113	-64,276	-25.7%	4.5%	0.2%
South Carolina	7,411	6,424	164,741	225,033	173,631	8,890	5.4%	4.2%	0.2%
Illinois	0	4	136,088	110,513	173,267	37,179	27.3%	4.2%	0.2%
Colorado	0	0	53,691	75,146	160,222	106,531	198.4%	3.9%	0.2%
California	24,263	40,476	420,856	352,999	155,755	-265,102	-63.0%	3.8%	0.2%
Oregon	0	0	0	112,838	140,537	140,537	NA	3.4%	0.2%
Virginia	1,969	2,424	32,619	86,491	118,430	85,811	263.1%	2.9%	0.1%
Hawaii	0	0	121,052	84,872	97,600	-23,452	-19.4%	2.4%	0.1%
Idaho	100,065	43	65,996	41,541	88,523	22,527	34.1%	2.1%	0.1%

Exhibit 5. 16. Trends Analysis on States with Largest Quantity Increase and Decrease (1999 – 2003): Facilities in Washington and California



**Priority Chemicals within Federal Agencies, by State.** Exhibit 5.17 shows the PC quantities reported by facilities in the indicated federal agency within the 16 States that accounted for over 90 percent of the total quantity reported by federal facilities in 2003.

**Significant increases, compared to quantities reported in 2001:**

- Department of Energy facilities in Washington (+ 629,809 pounds)
- Department of Defense facilities in Nevada (+211,.687 pounds)
- Department of Defense facilities (U.S. Army) in Missouri (+205,643 pounds)
- Department of Defense facilities (U.S. Army) in Oregon (+ 140,459 pounds)
- Department of Defense facilities (U.S. Marine Corps) in North Carolina (+ 129,563 pounds)
- Department of Energy facilities in New York (+ 124,827 pounds)
- Department of Defense facilities (U.S. Army) in Kentucky (+118,543 pounds)
- Department of Energy facilities in Colorado (+ 90,365 pounds)
- Department of Defense facilities in Georgia (+90,998 pounds)
- Department of Defense facilities in Virginia (+85.146 pounds)

**Significant decreases, compared to quantities reported in 2001:**

- Department of Defense facilities in California (-261,924 pounds)
- Department of Defense facilities in Texas (-61,976 pounds)

Exhibit 5. 17. Quantity (pounds) of Priority Chemicals Quantity by State and Federal agency (1999-2003)

State	Agency	1999	2000	2001	2002	2003	Percent of Total Quantity Reported by Federal Facilities (2003)
Washington	Department of Defense	20,087	40,485	98,121	110,589	115,034	2.8%
	Department of Energy	0	0	11,647	15,766	641,456	15.5%
	Department of Homeland Security	0	0	3	2	4,153	0.1%
	Total Quantity for Washington	20,087	40,485	109,771	126,357	760,643	18.4%
Georgia	Department of Defense	0	0	190,191	169,153	281,189	6.8%
	Department of Homeland Security	96,394	72,299	90,624	38,900	72,572	1.8%
	Total Quantity for Georgia	96,394	72,299	280,815	208,052	353,761	8.6%
Missouri	Department of Defense	0	7,748	91,816	174,996	297,459	7.2%
	Department of Energy	0	0	9	26	7	0.0%
	Total Quantity for Missouri	0	7,748	91,825	175,022	297,466	7.2%
North Carolina	Department of Defense	0	0	157,011	219,472	286,574	6.9%
	Environmental Protection Agency	0	43	64	16	0	0.0%
	Total Quantity for North Carolina	0	43	157,075	219,488	286,574	6.9%
Kentucky	Department of Defense	0	0	162,571	148,467	281,114	6.8%
	Total Quantity for Kentucky	0	0	162,571	148,467	281,114	6.8%
Nevada	Department of Defense	0	3,909	8,005	219,098	219,692	5.3%
	Department of Energy	0	0	710	4,616	6,730	0.2%
	Department of Interior	0	0	1,460	385	0	0.0%
	Total Quantity for Nevada	0	3,909	10,175	224,099	226,422	5.5%
New York	Department of Defense	0	0	52,333	58,956	60,562	1.5%
	Department of Energy	0	106	40,779	161,168	165,606	4.0%
	Total Quantity for New York	0	106	93,112	220,124	226,168	5.5%
Texas	Department of Defense	0	0	245,873	161,469	183,897	4.5%
	Department of Energy	0	199	4,316	4,730	2,216	0.1%
	Department of Interior	0	0	199	0	0	0.0%
	Department of Treasury	0	0	0	5	0	0.0%
	Total Quantity for Texas	0	199	250,388	166,204	186,113	4.5%
South Carolina	Department of Defense	0	0	152,341	214,076	139,972	3.4%
	Department of Energy	7,411	6,424	12,400	10,957	33,660	0.8%
	Total Quantity for South Carolina	7,411	6,424	164,741	225,033	173,631	4.2%
Illinois	Department of Defense	0	4	1,077	251	304	0.0%
	Department of Energy	0	0	135,012	110,262	172,963	4.2%
	Total Quantity for Illinois	0	4	136,088	110,513	173,267	4.2%

State	Agency	1999	2000	2001	2002	2003	Percent of Total Quantity Reported by Federal Facilities (2003)
Colorado	Department of Defense	0	0	50,583	45,768	66,745	1.6%
	Department of Energy	0	0	3,108	29,376	93,473	2.3%
	Department of Treasury	0	0	0	2	5	0.0%
	Total Quantity for Colorado	0	0	53,691	75,146	160,222	3.9%
California	Department of Defense	24,263	40,466	415,672	347,286	153,748	3.7%
	Department of Energy	0	10	4,673	5,193	2,006	0.0%
	Department of Homeland Security	0	0	20	0	0	0.0%
	Department of Interior	0	0	401	430	0	0.0%
	National Aeronautics and Space Administration	0	0	90	90	0	0.0%
	Total Quantity for California	24,263	40,476	420,856	352,999	155,755	3.8%
Oregon	Department of Defense	0	0	0	112,838	140,459	3.4%
	Department of Energy	0	0	0	0	78	0.0%
	Total Quantity for Oregon	0	0	0	112,838	140,537	3.4%
Virginia	Department of Defense	1,969	2,424	31,687	86,487	116,833	2.8%
	Department of Homeland Security	0	0	932	0	1,504	0.0%
	National Aeronautics and Space Administration	0	0	0	5	93	0.0%
	Total Quantity for Virginia	1,969	2,424	32,619	86,491	118,430	2.9%
Hawaii	Department of Defense	0	0	121,052	84,872	97,600	2.4%
	Total Quantity for Hawaii	0	0	121,052	84,872	97,600	2.4%
Idaho	Department of Energy	100,065	43	63,025	37,080	85,125	2.1%
	Environmental Protection Agency	0	0	2,971	4,461	3,397	0.1%
	Total Quantity for Idaho	100,065	43	65,996	41,541	88,523	2.1%

***How Did Federal Agencies Manage Priority Chemicals Within States?*** Exhibit 5.18 shows the management methods employed by federal facilities for PCs in 2003 – by federal agency, in the 16 States that accounted for 90 percent of the total quantity of PCs in 2003. Federal facilities in these states land disposed about 96 percent of their PCs, with about 83 percent of the total quantity disposed onsite. Four Department of Energy facilities - one each in New York, Illinois, Colorado, and Idaho--reported most of the quantity of PCs that was sent to offsite land disposal. A Department of Defense facility (U.S. Army) in Oregon treated most of their PC quantity onsite. Department of Defense and Department of Energy facilities in California and South Carolina, respectively, reported about 68 percent of the total quantity of recycled PCs.

**Exhibit 5. 18. Management Methods for Priority Chemicals by Federal Facilities in States with 90% of the Total Quantity in 2003**

<b>State</b>	<b>Agency</b>	<b>Total Quantity of Priority Chemicals (2003)</b>	<b>Onsite Disposal</b>	<b>Offsite Disposal</b>	<b>Onsite Energy Recovery</b>	<b>Offsite Energy Recovery</b>	<b>Onsite Treatment</b>	<b>Offsite Treatment</b>	<b>Onsite Recycling</b>	<b>Offsite Recycling</b>
Washington	Department of Defense	115,034	98,600	16,434	0	0	0	0	0	0
	Department of Energy	641,456	640,593	863	0	0	0	0	0	0
	Department of Homeland Security	4,153	0	4,153	0	0	0	0	0	0
	Washington Total	760,643	739,193	21,450	0	0	0	0	0	0
Georgia	Department of Defense	281,189	281,128	62	0	0	0	0	0	0
	Department of Homeland Security	72,572	54,029	18,543	0	0	0	0	0	7,743
	Georgia Total	353,761	335,157	18,605	0	0	0	0	0	7,743
Missouri	Department of Defense	297,459	290,352	7,107	0	0	0	0	0	0
	Department of Energy	7	0	7	0	0	0	0	0	1,592
	Missouri Total	297,466	290,352	7,114	0	0	0	0	0	1,592
North Carolina	Department of Defense	286,574	272,429	10,853	2,204	1,088	0	0	0	2
	North Carolina Total	286,574	272,429	10,853	2,204	1,088	0	0	0	2
Kentucky	Department of Defense	281,114	281,114	0	0	0	0	0	0	0
	Kentucky Total	281,114	281,114	0	0	0	0	0	0	0
Nevada	Department of Defense	219,692	219,692	0	0	0	0	0	0	0
	Department of Energy	6,730	1,156	5,574	0	0	0	0	0	126,573
	Nevada Total	226,422	220,849	5,574	0	0	0	0	0	126,573

State	Agency	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
New York	Department of Defense	60,562	60,562	0	0	0	0	0	0	7
	Department of Energy	165,606	0	165,606	0	0	0	0	0	0
	New York Total	226,168	60,562	165,606	0	0	0	0	0	7
Texas	Department of Defense	183,897	183,056	520	0	300	0	21	0	281
	Department of Energy	2,216	2,216	0	0	0	0	0	0	876
	Department of Treasury	0	0	0	0	0	0	0	0	500
	Texas Total	186,113	185,272	520	0	300	0	21	0	1,657
South Carolina	Department of Defense	139,972	139,972	0	0	0	0	0	0	0
	Department of Energy	33,660	5,738	27,921	0	0	0	0	265,180	94,087
	South Carolina Total	173,631	145,710	27,921	0	0	0	0	265,180	94,087
Illinois	Department of Defense	304	0	56	0	248	0	0	0	1
	Department of Energy	172,963	0	172,963	0	0	0	0	0	3,619
	Illinois Total	173,267	0	173,019	0	248	0	0	0	3,620
Colorado	Department of Defense	66,745	66,743	2	0	0	0	0	0	0
	Department of Energy	93,473	0	93,473	0	0	0	0	0	96,232
	Department of Treasury	5	0	5	0	0	0	0	0	235
	Colorado Total	160,222	66,743	93,479	0	0	0	0	0	96,467

State	Agency	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
California	Department of Defense	153,748	152,456	1,292	0	0	0	0	202,100	5,812
	Department of Energy	2,006	1,870	136	0	0	0	0	0	9,800
	California Total	155,755	154,326	1,429	0	0	0	0	202,100	15,612
Oregon	Department of Defense	140,459	0	3,652	0	0	134,372	2,435	0	0
	Department of Energy	78	0	78	0	0	0	0	0	1,024
	Oregon Total	140,537	0	3,730	0	0	134,372	2,435	0	1,024
Virginia	Department of Defense	116,833	113,505	3,328	0	0	0	0	0	2,014
	Department of Homeland Security	1,504	1,504	0	0	0	0	0	0	6,300
	National Aeronautics and Space Administration	93	0	15	0	0	0	78	0	1,080
	Virginia Total	118,430	115,009	3,343	0	0	0	78	0	9,394
Hawaii	Department of Defense	97,600	95,735	1,866	0	0	0	0	0	1,782
	Hawaii Total	97,600	95,735	1,866	0	0	0	0	0	1,782
Idaho	Department of Energy	85,125	10,749	74,131	0	158	0	87	0	14,192
	Environmental Protection Agency	3,397	3,397	0	0	0	0	0	0	0
	Idaho Total	88,523	14,146	74,131	0	158	0	87	0	14,192
	<b>Total for These States</b>	<b>3,726,226</b>	<b>2,976,595</b>	<b>608,639</b>	<b>2,204</b>	<b>1,794</b>	<b>134,372</b>	<b>2,621</b>	<b>467,280</b>	<b>373,752</b>

*Industry Sector (SIC Code) Overview of Generation and Management Trends.* In 2003, a PC quantity was reported by federal facilities in 26 different SIC codes. Exhibit 5.19 presents the PC quantities (from 1999-2003) for those 5 industry sectors (SICs) that accounted for 98 percent of the total quantity of PCs in 2003. Over 96 percent of this

quantity was Lead and lead compounds. Federal facilities in SIC 9711 (National Security) reported almost 98 percent of the total quantity of PCs reported by federal facilities in 2003. In 2003, facilities in 4 of these 5 industry sectors reported a significant increase in the quantity of PCs, compared to the quantity reported in 2001.

Exhibit 5. 19. Quantity (pounds) of Priority Chemicals in the Industry Sectors (SICs) that Accounted for 98 Percent of the total Priority Chemical Quantity in 2003

Primary SIC Code	SIC Description	1999	2000	2001	2002	2003	Change in Quantity (2001-2003)	Percent Change in Quantity (2001-2003)	Percent of Total Quantity of Priority Chemicals Reported by Federal Facilities (2003)
9711	National security	71,331	163,013	2,062,716	2,430,393	2,787,601	724,885	35.1%	67.5%
9511	Air, water, and solid waste management	0	0	14,618	20,227	644,853	630,235	4311.4%	15.6%
8733	Noncommercial research organizations	100,065	53	203,419	153,940	426,647	223,228	109.7%	10.3%
9229	Public order and safety, nec	96,394	83,279	106,528	150,708	107,661	1,133	1.1%	2.6%
3489	Ordnance and accessories, nec	0	0	3,108	29,376	93,473	90,364	2907.4%	2.3%

Exhibit 5.20 shows the PC quantity reported by federal facilities for each PC, by industry sector, in 1999-2003. In 2003, nearly 97 percent of the total quantity of PCs was lead and lead compounds. About 64 percent of the lead and lead compounds were reported by facilities in SIC 9711- National Security.

Exhibit 5. 20. Quantity of Priority Chemical Reported by Federal Facilities, By Priority Chemical and Industry Sector (1999-2003)

Chemical	Primary SIC Code	SIC Description	1999	2000	2001	2002	2003	Percent of Total Quantity reported by Federal Facilities in 2003
1,2,4 - Trichlorobenzene	3795	Tanks and tank components	0	0	0	160,000	0	0.0%
	9711	National security	0	0	0	112,827	45,552	1.1%
Benzo(g,h,i)perylene	8221	Colleges and universities	0	1		0	0	0.0%
	9711	National security	0	0	0	0	5	0.0%
Dioxin and dioxin-like compounds	9999	Nonclassifiable establishment	0	11	1	0	0	0.0%
Hexachlorobenzene	9711	National security	0	0	28	0	0	0.0%
Hexachloroethane	3795	Tanks and tank components	0	0	0	84,900	0	0.0%
	9711	National security	0	0	0	0	91,255	2.2%

Chemical	Primary SIC Code	SIC Description	1999	2000	2001	2002	2003	Percent of Total Quantity reported by Federal Facilities in 2003
Lead and Lead Compounds	2754	Commercial printing, gravure	0	0	0	284	41	0.0%
	2819	Industrial inorganic chemicals, nec	7,408	6,422	246	419	0	0.0%
	2892	Explosives	1,969	2,424	9,084	73,538	21,312	0.5%
	3341	Secondary nonferrous metals	0	0	41	0	0	0.0%
	3469	Metal stampings, nec	0	0	0	13	81	0.0%
	3482	Small arms ammunition	0	7,726	7,586	771	948	0.0%
	3483	Ammunition, except for small arms, nec	0	0	233	259	225	0.0%
	3489	Ordnance and accessories, nec	0	0	3,108	29,376	93,473	2.3%
	3499	Fabricated metal products, nec	4,912	5,633	9,700	7,937	4,582	0.1%
	3731	Ship building and repairing	0	0	0	1,616	2,151	0.1%
	3761	Guided missiles and space vehicles	0	0	2	3	2	0.0%
	3764	Space propulsion units and parts	0	0		416	251	0.0%
	3795	Tanks and tank components	0	0	219	85,264	0	0.0%
	7999	Amusement and recreation, nec	0	0	122	0	0	0.0%
	8221	Colleges and universities	0	0	7,787	10,570	14,886	0.4%
	8731	Commercial physical research	4,773	5	0	4,340	4,129	0.1%
	8733	Noncommercial research organizations	100,065	10	203,419	153,925	425,799	10.3%
	8744	Facilities support services	0	0	176	40	0	0.0%
	8999	Services, nec	0	0	988	2,019	746	0.0%
	9199	General government, nec	0	0	1,237	1,514	2,408	0.1%
	9221	Police protection	0	0	15,630	25,625	249	0.0%
	9229	Public order and safety, nec	96,394	83,279	106,528	150,708	107,661	2.6%
	9411	Administration of educational programs	0	0	20	0	0	0.0%
	9511	Air, water, and solid waste management	0	0	14,618	20,227	644,853	15.6%
	9512	Land, mineral, wildlife conservation	0	0	1,152	1,198	797	0.0%
	9621	Regulation, admin. of transportation	0	0	1,185	27,721	3,469	0.1%
	9661	Space research and technology	0	0	4,672	6,158	3,984	0.1%
	9711	National security	71,221	160,317	2,012,356	2,291,324	2,642,108	63.9%
	9999	Nonclassifiable establishment	0	0	40,179	178,605	11,608	0.3%

Chemical	Primary SIC Code	SIC Description	1999	2000	2001	2002	2003	Percent of Total Quantity reported by Federal Facilities in 2003
Mercury and Mercury Compounds	2819	Industrial inorganic chemicals, nec	0	4	14	0	0	0.0%
	3341	Secondary nonferrous metals	0	0	9	0	0	0.0%
	3482	Small arms ammunition	0	22	5	1	0	0.0%
	3483	Ammunition, except for small arms, nec	0	199	0	0	0	0.0%
	3499	Fabricated metal products, nec	95	20	278	186	16	0.0%
	8731	Commercial physical research	700	0	0	0	0	0.0%
	8733	Noncommercial research organizations	0	9	0	0	600	0.0%
	9199	General government, nec	0	0	0	0	78	0.0%
	9711	National security	0	55	47,568	5,394	656	0.0%
	9999	Nonclassifiable establishment	0	138	663	140	0	0.0%
Naphthalene	2819	Industrial inorganic chemicals, nec	3	0	0	0	0	0.0%
	3795	Tanks and tank components	0	0	0		111	0.0%
	4581	Airports, flying fields, and services	0	0	0	27	21	0.0%
	8733	Noncommercial research organizations	0	34	0	0	9	0.0%
	9199	General government, nec	0	0	0	30	0	0.0%
	9661	Space research and technology	0	0	0	0	78	0.0%
	9711	National security	110	2,641	2,764	20,848	7,336	0.2%
Polycyclic Aromatic Compounds	8221	Colleges and universities	0	54	0	0	0	0.0%
	8733	Noncommercial research organizations	0	0	0	16	238	0.0%
	9711	National security	0	0	0		690	0.0%
Total Quantity			287,650	269,003	2,491,618	3,458,240	4,132,407	

*How Did Federal Agencies Manage Priority Chemicals Within SIC Codes?* Federal facilities in 5 SIC codes reported 98 percent of the PCs in 2003. Exhibit 5.21 shows how federal facilities in these 5 industry sectors managed PCs. Overall, these facilities used land disposal, primarily onsite, for most of the total quantity of PCs. Facilities in the SIC 8733 (Noncommercial research organizations) and SIC 3489 (Ordnance and accessories, nec) primarily used offsite disposal. Most recycling was reported by facilities in SIC 9711 (National security).

Exhibit 5. 21. Methods used by Federal Facilities to Manage Priority Chemicals, by Industry Sector, in 2003

Primary SIC Code	SIC Description	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
9711	National security	2,787,601	2,528,146	116,254	2,204	4,151	134,372	2,475	467,477	444,277
9511	Air, water, and solid waste management	644,853	643,991	863	0	0	0	0	0	0
8733	Noncommercial research organizations	426,647	13,565	412,836	0	158	0	87	0	27,611
9229	Public order and safety, nec	107,661	86,160	21,501	0	0	0	0	0	7,743
3489	Ordnance and accessories, nec	93,473	0	93,473	0	0	0	0	0	96,232

Exhibit 5.22 shows the method used by federal facilities to manage PCs, by federal agency and sector in 2003. Federal facilities in every Agency reported land disposal as the primary and often only method for managing PCs.

Exhibit 5. 22. Methods used to Manage Priority Chemicals, by Agency and Industry Sector, in 2003

Primary SIC Code	SIC Description	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
Department of Agriculture										
9199	General government, nec	2,408	2,408	0	0	0	0	0	0	19
Department of Agriculture Total		2,408	2,408	0	0	0	0	0	0	19
Department of Defense										
9711	National security	2,728,368	2,519,244	65,922	2,204	4,151	134,372	2,475	202,297	208,801
2892	Explosives	19,096	19,096	0	0	0	0	0	0	0
8221	Colleges and universities	14,859	14,859	0	0	0	0	0	0	7
9999	Nonclassifiable establishment	11,608	11,608	0	0	0	0	0	0	0
3482	Small arms ammunition	948	948	0	0	0	0	0	0	0
3764	Space propulsion units and parts	251	0	251	0	0	0	0	0	0
3483	Ammunition, except for small arms, nec	225	225	0	0	0	0	0	0	0
3795	Tanks and tank components	111	0	0	111	0	0	0	0	0
4581	Airports, flying fields, and services	21	0	0	0	21	0	0	0	0
3761	Guided missiles and space vehicles	2	0	2	0	0	0	0	0	1,586
Department of Defense Total		2,775,488	2,565,979	66,175	2,315	4,172	134,372	2,475	202,297	210,394

Primary SIC Code	SIC Description	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling
Department of Energy									
9511	Air, water, and solid waste management	641,456	640,593	863	0	0	0	0	0
8733	Noncommercial research organizations	426,647	13,565	412,836	0	158	0	87	27,611
3489	Ordnance and accessories, nec	93,473	0	93,473	0	0	0	0	96,232
9711	National security	53,574	7,398	46,176	0	0	0	265,180	229,176
3499	Fabricated metal products, nec	4,598	4,287	311	0	0	0	0	0
8731	Commercial physical research	4,129	0	4,129	0	0	0	26,000	455
2892	Explosives	2,216	2,216	0	0	0	0	0	876
9199	General government, nec	78	0	78	0	0	0	0	1,024
Department of Energy Total		1,226,171	668,060	557,865	0	158	0	87	355,374
Department of Homeland Security									
9229	Public order and safety, nec	107,661	86,160	21,501	0	0	0	0	7,743
9711	National security	5,659	1,504	4,156	0	0	0	0	6,300
9621	Regulation, admin. of transportation	3,469	1,877	1,592	0	0	0	0	0
3731	Ship building and repairing	2,151	0	2,151	0	0	0	0	0
8221	Colleges and universities	27	0	27	0	0	0	0	4,300
Department of Homeland Security Total		118,967	89,541	29,426	0	0	0	0	18,343
Department of Interior									
9512	Land, mineral, wildlife conservation	797	797	0	0	0	0	0	0
Department of Interior Total		797	797	0	0	0	0	0	0
Department of Justice									
9221	Police protection	249	0	249	0	0	0	0	0
Department of Justice Total		249	0	249	0	0	0	0	0
Department of Treasury									
3469	Metal stampings, nec	81	0	81	0	0	0	0	9,884
2754	Commercial printing, gravure	41	0	41	0	0	0	30	502
Department of Treasury Total		122	0	122	0	0	0	30	10,386
Environmental Protection Agency									
9511	Air, water, and solid waste management	3,397	3,397	0	0	0	0	0	0
Environmental Protection Agency Total		3,397	3,397	0	0	0	0	0	0
National Aeronautics and Space Administration									
9661	Space research and technology	4,061	3,962	21	0	0	0	78	1,513
National Aeronautics and Space Administration Total		4,061	3,962	21	0	0	0	78	1,513

Primary SIC Code	SIC Description	Total Quantity of Priority Chemicals (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling
Tennessee Valley Authority									
8999	Services, nec	746	0	746	0	0	0	0	1,800
Tennessee Valley Authority Total		746	0	746	0	0	0	0	1,800
Total Quantity of Priority Chemicals		4,132,407	3,334,144	654,605	2,315	4,331	134,372	2,640	493,507

Exhibit 5.23 shows the methods used by federal facilities to manage PCs in 2003, by chemical and sector. Hexachloroethane and 1,2,4 - trichlorobenzene were treated (primarily onsite) by federal facilities in SIC 9711 -National security. Lead and lead compounds, mercury and mercury compounds, and benzo(g,h,i)perylene were land disposed by federal facilities in every sector. About 86 percent of the naphthalene was sent to Energy recovery – mostly by federal facilities in SIC 9711. Some naphthalene also was land disposed or treated. For the PACs, federal facilities in SIC 9711 used onsite land disposal; facilities in SIC 8733 (Noncommercial research organizations, nec) used offsite energy recovery or treatment. Lead and lead compounds and mercury and mercury compounds accounted for most of the recycling reported by federal facilities. Aside from these two metals, recycling was only reported for naphthalene – by federal facilities in SIC 9711.

Exhibit 5. 23. Methods used to Manage Priority Chemicals, by Chemical and Industry Sector, in 2003

Primary SIC Code	SIC Description	Total Priority Chemical Quantity (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
1,2,4 - Trichlorobenzene										
9711	National security	45,552	0	0	0	0	45,461	91	0	0
Benzo(g,h,i)perylene										
9711	National security	5	5	0	0	0	0	0	0	0
Hexachloroethane										
9711	National security	91,255	0	0	0	0	88,911	2,344	0	0
Lead and Lead Compounds										
9711	National security	2,642,108	2,527,001	115,107	0	0	0	0	466,680	431,518
9511	Air, water, and solid waste management	644,853	643,991	863	0	0	0	0	0	0
8733	Noncommercial research organizations	425,799	13,565	412,234	0	0	0	0	0	27,611
9229	Public order and safety, nec	107,661	86,160	21,501	0	0	0	0	0	7,743
3489	Ordnance and accessories, nec	93,473	0	93,473	0	0	0	0	0	96,232
2892	Explosives	21,312	21,312	0	0	0	0	0	0	876
8221	Colleges and universities	14,886	14,859	27	0	0	0	0	0	4,307
9999	Nonclassifiable establishment	11,608	11,608	0	0	0	0	0	0	0

Primary SIC Code	SIC Description	Total Priority Chemical Quantity (2003)	Onsite Disposal	Offsite Disposal	Onsite Energy Recovery	Offsite Energy Recovery	Onsite Treatment	Offsite Treatment	Onsite Recycling	Offsite Recycling
3499	Fabricated metal products, nec	4,582	4,282	300	0	0	0	0	0	0
8731	Commercial physical research	4,129	0	4,129	0	0	0	0	26,000	455
9661	Space research and technology	3,984	3,962	21	0	0	0	0	0	1,513
9621	Regulation, admin. of transportation	3,469	1,877	1,592	0	0	0	0	0	0
9199	General government, nec	2,408	2,408	0	0	0	0	0	0	19
3731	Ship building and repairing	2,151	0	2,151	0	0	0	0	0	0
3482	Small arms ammunition	948	948	0	0	0	0	0	0	0
9512	Land, mineral, wildlife conservation	797	797	0	0	0	0	0	0	0
8999	Services, nec	746	0	746	0	0	0	0	0	1,800
3764	Space propulsion units and parts	251	0	251	0	0	0	0	0	0
9221	Police protection	249	0	249	0	0	0	0	0	0
3483	Ammunition, except for small arms, nec	225	225	0	0	0	0	0	0	0
3469	Metal stampings, nec	81	0	81	0	0	0	0	0	9,884
2754	Commercial printing, gravure	41	0	41	0	0	0	0	30	502
3761	Guided missiles and space vehicles	2	0	2	0	0	0	0	0	1,586
3341	Secondary nonferrous metals	0	0	0	0	0	0	0	0	0
Mercury and Mercury Compounds										
9711	National security	656	9	647	0	0	0	0	797	6,947
8733	Noncommercial research organizations	600	0	600	0	0	0	0	0	0
9199	General government, nec	78	0	78	0	0	0	0	0	1,024
3499	Fabricated metal products, nec	16	6	11	0	0	0	0	0	0
Naphthalene										
9711	National security	7,336	442	499	2,204	4,151	0	40	0	5,812
3795	Tanks and tank components	111	0	0	111	0	0	0	0	0
9661	Space research and technology	78	0	0	0	0	0	78	0	0
4581	Airports, flying fields, and services	21	0	0	0	21	0	0	0	0
8733	Noncommercial research organizations	9	0	1	0	0	0	8	0	0
Polycyclic Aromatic Compounds										
9711	National security	690	690	0	0	0	0	0	0	0
8733	Noncommercial research organizations	238	0	1	0	158	0	79	0	0
Total Quantity		4,132,407	3,334,144	654,605	2,315	4,331	134,372	2,640	493,507	597,828